

Centralized Data Repository Reduces Expenses and Improves Data Sharing

Edgewater Technology creates an innovative solution connecting the worldwide operations of a global breeding stock producer.

Edgewater's solution:

- Provides automation to a manual data-sharing process;
- Decreases task redundancy leading to streamlined operations;
- Delivers accessibility to the right data quickly and efficiently across the organization's network; and
- Enables the organization to efficiently manage the complexities of doing business in the global marketplace.

Industry Leader

Currently, this organization supplies 38% of the world's poultry industry from two primary production areas — the United States and United Kingdom. Their products are shipped directly from their production areas to global destinations via a network of distributors.

Having carefully outlined their business plans for continued growth in early 2001, the organization plans to represent 50% of the world poultry supply within the next five years. To support this plan, they required a state-of-the-art system integrating all aspects of their worldwide operations which would enable them to reach their future goals. Realizing the need for a robust, customized system, this organization partnered with Edgewater Technology to provide an enterprise-wide commerce solution.

Going Global

The organization was operating using a combination of commercial software systems and internally-developed systems. Operations in the United States and United Kingdom were utilizing individual systems and procedures as opposed to an integrated system for the entire organization. Within these two operations, data sharing was nonexistent or required manual processes in order to share data between business functions.

The main processes were a hybrid combination of automated and manual tasks. For example, at any given time, several hundred flocks of poultry were in various stages of their life cycle. These flocks are aggregated in nine main production areas around the world. Information on

every flock was collected daily, and recorded on paper forms. On a weekly basis, this information, which is critical to order fulfillment, was faxed to the local production office for entry into the legacy system. The need was recognized to streamline this process in order to more effectively fill orders and disseminate information to key decision makers.

In addition, daily egg products must be continuously monitored. Every flock of poultry in production, or producing eggs, are expected to generate a pre-designated number of eggs each day. When a flock is either under or over performing, the repercussions can be serious and can directly affect the organization's ability to fill orders. Since this information was only entered into the system once a week, the organization often did not realize the affect of this information until the last minute when it was often too late to react if necessary.

It was determined that the system must be revamped to easily handle the bureaucracy associated with international orders and shipping. Since each country has its own import and export conditions, the international orders required a large amount of country-specific paperwork.

Realizing such a large disparity of their systems, the organization required a partner who could unite its global operations for more efficiency and integration. They chose Edgewater for their experience in creating customized Information Technology solutions that assist organizations with unique business models to better manage their operations through the use of technology.

The Business Solution

Edgewater's team worked closely with the organization to develop a custom solution that will enable employees to access a central repository of real-time information while reducing overall business expenses and improving data sharing.

In order to facilitate efficiency while reducing overall business costs within the complete operation, data sharing is critical. With the custom application built by Edgewater, they are now able to harness the Internet by linking their facilities for real-time information gathering and data sharing. Now, corporate-wide data gathering is possible from all international locations quickly and economically — avoiding potential overages or shortages.

There was a need to be able to monitor, on a daily basis, the hundreds of flocks in various stages of their life cycle. Their legacy system required the data to be entered numerous times, and in different locations in order to ensure employees would have access to the appropriate data. With the new solution, data is entered once and reused many different times, avoiding down-times and possible data conversion errors. Data sharing greatly continues to reduce the redundancies that were found with their old paper system.

This real-time data allows for better planning from their order fulfillment operation. This custom solution has a historical database of all information gathered for every poultry flock in the production pipeline, while providing a robust reporting system allowing for ad-hoc reporting for crucial information and data.

The solution that Edgewater developed also provides security which controls access to data by employees in locations around the world. The organization is now able to reap all the benefits of immense data sharing while maintaining corporate security standards.

The Technical Solution

Edgewater utilized an object-oriented browser-based application employing Microsoft's SQL Server and Windows. The data model is designed with objects that will represent main business entities such as flocks, farms, orders, customers, and others. This object-oriented approach also allows for maximum efficiency in the use of data across the organization and also allows different business units to use the same information.

In addition, Edgewater constructed a Graphical User Interface (GUI) for each of the 24 management modules. Each of these modules address a different area of the organization's business and are linked through these common data-entry screens for real-time data sharing. This custom solution was constructed to maintain data retention in the event of a failure at one data center. Back-up copies of data are stored on reporting servers located at each main data center.

To facilitate the data entry process from the hundreds of farms across the globe, Edgewater implemented an Integrated Voice Recognition (IVR) system. Using this system, farmers are able to report daily egg production information from each of their flocks. The IVR component allows for rapid information gathering, allowing improved decision-making and enhanced order fulfillment.

To harness the wealth of information being collected, a strong report generation tool was required. The Brio Enterprise Reporting (Brio) engine was chosen, based on Edgewater's recommendation, to meet these reporting needs. The Brio product runs inside a browser and gives the user the ability to view, modify or create reports via a robust GUI interface. One of the main requirements on the reporting solution was the ability to allow users to create ad-hoc reports. Brio, working in conjunction with the Edgewater-built security model and custom solution, meets the organization's reporting needs while maintaining full control over user access to data.

Though a vast majority of reports are based on parameters that are set at runtime, custom specific user screens were written in the event that 24x7 reporting is required. Edgewater created a report maintenance system within the Phoenix software. The system administrator takes the report, which was created in Brio, and uses our screens to describe the report to the system. The administrator lists the report title, security group and the parameters expected along with their data types. When a user then requests the report, the system dynamically generates a parameter screen to capture the runtime parameter information, which is passed to the reporting engine which the takes over to create the report. There are two types of security on each report: data level and modification level. The data level security controls information the user is able to access and the modification level security determines if the user has permission to modify the report.

Technology and Tools

- Active X
- ASP
- Brio
- COM+
- GUI
- HTML/DHTML
- Java Script
- Microsoft IIS
- Microsoft Internet Explorer
- Microsoft SQL Server
- Microsoft Windows VB Script
- VB Voice Professional
- Visual Basic XML/XSL